

REMARKS

In the Final Official Action, the Examiner rejected claims 1-55. Claim 36 has been amended as set forth above to more clearly recite the subject matter of the invention. Favorable reconsideration of the application is respectfully requested in light of the following remarks.

Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1-6, 8-24, and 26-55 under 35 U.S.C. § 103(a) as being unpatentable over the Kikinis reference (U.S. Patent No. 5,522,089) in view of the Goodrich reference (U.S. Patent No. 5,375,076) and further in view of the Swafford reference (U.S. Patent No. 5,608,449).

The Examiner's rejection of the claims is respectfully traversed. The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). To establish a *prima facie* case, the Examiner must show that the combination includes all of the claimed elements and, also, must present a convincing line of reasoning as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988).

It is respectfully submitted that the Examiner has failed to establish a *prima facie* case of obviousness in view of the Kikinis/Goodrich/Swafford combination, because the Examiner has not properly demonstrated a suggestion that would have motivated one skilled in the art to modify the teachings of the references to obtain the claimed invention.

Briefly, the Kikinis reference discloses a personal digital assistant (PDA) that may be docked with a host general-purpose computer. The PDA includes a local CPU, memory, and display and, thus, is capable of functioning as a stand-alone mini-computer that can process applications stored in its memory. The PDA also can be docked with the host computer, such that the host computer (by virtue of its own processor) can assume control of the PDA to access and download its memory.

The Goodrich reference discloses a combined notepad and notebook computer system. The system includes a main unit which houses the display, drives, and other electronics of a computer. The display functions as the display device in both the notepad mode of operation and the notebook computer mode of operation. The display, when used with a stylus, also functions as the input device in the notepad mode. In the notebook mode, the input device is provided by a keyboard that is detachable from the main unit.

The Swafford reference discloses a wireless interactive consumer video system that includes an input and display unit that communicates with a video electronics unit.

Communications between the input and display unit and the video electronics unit may be wireless.

In rejecting independent claims 1, 21, and 41, the Examiner has asserted that the primary reference, Kikinis, could be modified with the teachings of the Goodrich and Swafford references to obtain a computing system comprising a processor-less user input device. With respect to independent claim 1, it recites a portable computer system comprising a portable base computer and a processor-less portable user interface module detachably coupleable to the base computer. Independent claim 21 recites a user interface module for use with a portable base computer system. The base computer system “comprises a processor to execute an application program,” and the user interface module “does not comprise a processor to execute an application program.” Independent claim 41 recites a portable computer system comprising a base unit, a portable user interface module detachably coupleable to the base unit, and “*only*” one processor. Claim 41 further limits the only one processor to being disposed within the base unit.

As discussed above and in contrast to the systems recited in claims 1, 21, and 41, the Kikinis reference discloses a system having a host general purpose computer and a portable PDA, each of which includes a processor. Because a processor is in each of the individual devices, the host computer and the portable PDA form a host/satellite combination with each device being capable of functioning as an independent, stand-alone processing unit. Thus, removal of the processor from either the PDA or the host computer would destroy the independent functionality of the individual units and defeat

the purpose of having a portable computing device which can be docked to a host computer such that the host can access and control (e.g., download memory) the PDA.

Indeed, if either one of the PDA and the host computer did not have a processor, there would be no reason to dock the PDA with the host. That is, if the PDA could not function as an independent computing device, no reason would exist to dock the PDA to the host such that the host could download the PDA's memory (i.e., synchronize the PDA and the host). Likewise, if the host could not function as an independent computing device, again there would be no reason to synchronize the host with the PDA. Moreover, without a processor, the host computer would not be capable of accessing and controlling the PDA such that it could download the PDA's memory.

It is noted that the requisite suggestion to modify a reference with the teachings of another reference exists only if the *desirability* of making the modification can be shown. *See, e.g., Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). If, as in the present case, the modification of the cited reference would destroy the intended purpose or function of the cited reference, then the desirability of making the modification, and thus the requisite suggestion, is lacking. *See, e.g., In re Gordon*, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). In other words,

Even though removal of a processor from either the PDA or the host computer disclosed in the Kikinis reference would affect the functionality and purpose of the

individual devices and the host/satellite combination, the Examiner has asserted that a suggestion does indeed exist for the modification. Specifically, the Examiner has stated:

Swafford, Jr. et al. teach a computer system comprising a processor-less portable user interface (2) (see figures 1-3; column 2, lines 1-6 and column 7, lines 31-47). *It would have been obvious to have modified Kikinis et al as modified with the teaching of Swafford, Jr. et al since the processor for controlling an interface unit(2) can be located in a base unit (14) (Swafford, Jr.'s column 7, lines 31-47 and a change in location is generally recognized as being within the level of ordinary skill in the art.*

(emphasis added).

Regardless of how obvious “a change of location” may seem, it is respectfully submitted that the modification at issue in this case is *removal* of a processor, not “a change of location.” Moreover, to establish a *prima facie* case of obviousness, the Examiner cannot merely state a suggestion or motivation in the abstract, but rather must show the *desirability* (i.e., the motivation) of modifying the *cited reference* (i.e., Kikinis). Thus, the suggestion or motivation must be examined within the context of the teachings of the cited references. It is submitted that, in the context of these cited references, the Examiner’s proffered suggestion is insufficient, because removing a processor from one of the devices disclosed in the Kikinis reference would destroy the functionalities and purposes of the individual device and the combination of the two devices. Because functionality would be destroyed, such a modification could only be viewed as *undesirable*. Accordingly, a motivation to modify the Kikinis reference with the teachings of the Swafford reference to obtain the invention recited in independent claims 1, 21 and 41 cannot be shown.

Similar issues exist regarding the rejection of independent claims 13, 30, 36, 41 (again), 45, and 50. With respect to independent claim 13, it recites a portable base computer system for use with a mobile user interface module that comprises a two-dimensional display and a user input device. The portable base computer comprises a processor, but does *not* comprise a display device operatively connected to the processor to display graphical information based on results generated by the processor.

Independent claim 30 recites a portable computer system comprising a portable means for processing application programs in response to user interface signals, and a portable user interface means comprising a first user input device to generate user interface signals. The portable means for processing does *not* comprise a second user input device to generate user interface signals.

Independent claim 36 recites a computing method wherein a base computer at a first location communicates by a wireless communication method with a remote user interface module. The remote user interface module comprises a portable user input device. At a second location, the base computer and the user interface module communicate by a wired communication method. At both the first and second locations, application programs are processed in the base computer in response only to user input signals generated via the portable user input device

Independent claim 41 recites a portable computer system comprising a base unit and a portable user interface module comprising a user input device and a display device. The user interface module is detachably coupleable to the base unit. The system also comprises only one processor which is disposed within the base unit. The processor is configured to respond to user input signals from the user input device regardless of whether the base unit is coupled to or detached from the user interface module.

Independent claim 50 recites a portable computer system comprising only one user input device, a base unit having a processor, and a portable user interface module. The user interface module comprises both the user input device and a display. The processor in the base unit is responsive only to user input signals that are input from the only one user input device regardless of whether the base unit is couple to or detached from the user interface module.

With respect to these claims, the Examiner has stated:

As to claims 13, 30, 36, 41-43, 45, 47, 48 and 50-52, Swafford, Jr. et al teach a base unit (14) does not have a display device and an input device (see figures 1-3 and column 5, lines 5-16). *It would have been obvious to have modified Kikinis et al as modified with the teaching of Swafford, Jr. et al, so as to simplify the base unit by eliminating a display and an input device in a base unit.*

(emphasis added).

The Examiner's alleged suggestion for modifying the Kikinis reference with the teachings of the Swafford reference is traversed. Again, there simply is no motivation

that would have led one skilled in the art to “simplify” any device disclosed in the Kikinis reference by *removing* the display or the user input device, because such simplification would destroy the functionality of the host/satellite combination and the devices’ abilities to function as stand-alone processing units. That is, if either the host computer or the PDA did not have a display connected to its processor, they would not be very useful as independent processing devices. Likewise, the lack of a user input device for either the host computer or the PDA would impair the ability of that device to function independently in the manner clearly intended by the Kikinis reference.

In view of the foregoing discussion, it is respectfully submitted that the Examiner has not presented evidence sufficient to establish a *prima facie* case of obviousness in view of the combination of the Kikinis, Goodrich, and Swafford references. Accordingly, withdrawal of the rejection of claims 1-6, 8-24, and 26-55 in view of the combined references is respectfully requested.

The Examiner rejected claims 7 and 25 under 35 U.S.C. § 103(a) as being unpatentable over the Kikinis reference in view of the Goodrich reference and further in view of the Martin reference (U.S. Patent No. 5,148,155). Specifically, the Examiner stated:

Kikinis et al. fail to disclose a portable interface device comprising a 640X480 display.

Martin et al. teach a portable computer system comprising a 640X480 display for display a window, a pointing device (224) and a keyboard (222) with letter and ten decimal keys (see figures 1, 10, 11; column 5, lines 31-36; column 33, lines 28-37 and column 34, lines 1-7). It

would have been obvious to have modified Kikinis et al. as modified with the teaching of Martin et al., since Kikinis et al. have been disclosed a display resolution could be changed (see column 8, lines 2-8).

The Examiner's rejection is respectfully traversed because the Kikinis/Goodrich/Martin combination does not teach, disclose, or suggest all of the elements recited in claims 7 and 25. With respect to claim 7, it depends from claim 1 and, thus, recites a portable computer system comprising a portable base computer and a processor-less portable user interface module that is detachably coupleable to the base computer. The processor-less user interface module comprises a display and a user input device.

As discussed above, the Kikinis reference does not teach, disclose, or suggest a *processor-less* user interface module having a display and a user input device. Instead, the Kikinis reference discloses a system having a host computer and a portable PDA, each of which includes a processor, allowing each of the devices to process applications independently of the other.

The Goodrich reference does not compensate for the deficiencies of the Kikinis reference. The only unit disclosed in the Goodrich reference, which functions as either a notepad or a notebook computer, includes an integral display *and* a processor. Thus, the Goodrich reference does not teach, disclose, or suggest any type of user interface device that includes a display, but does *not* include a processor.

The Martin reference does not compensate for the deficiencies of the Kikinis and Goodrich references. Indeed, the Examiner cites the Martin reference merely for its disclosure of a portable interface device comprising a 640 x 480 display.

Based on the foregoing, it is submitted that the Kikinis/Goodrich/Martin combination does not render claim 7 obvious because the combination does not teach, disclose, or suggest all of the elements recited in claim 7. To the extent that the Examiner meant to include the Swafford reference in the combination (but did not), it is submitted that the Examiner has not presented sufficient evidence of a suggestion to modify the Kikinis reference with the teachings of the Swafford reference, as discussed in detail above. Accordingly, withdrawal of the rejection of claim 7 is respectfully requested.

With respect to claim 25, it depends from claim 21 and, thus, recites a user interface module for use with a portable base computer system that includes a processor to execute an application program. The user interface module comprises a display and a user input device. Claim 25 further is limited such the user interface module does *not* comprise a processor to execute an application program.

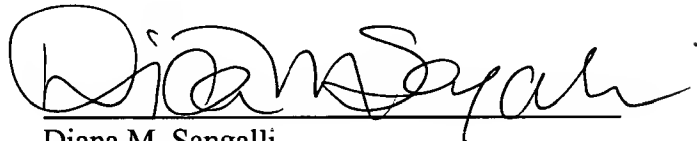
As discussed above with respect to claim 7, the Kikinis reference, the Goodrich reference, and the Martin reference, alone or in combination, do not teach, disclose, or suggest a user interface module that *does not* include a processor to execute an application program. To the extent that the Examiner intended to combine the Swafford

reference with the Kikinis/Goodrich/Martin combination, it again is submitted that the requisite suggestion to modify the Kikinis reference with the teachings of the Swafford reference has not been shown. Accordingly, withdrawal of the rejection of claim 25 is respectfully requested.

Conclusion

In view of the remarks and amendment set forth above, Applicant respectfully requests allowance of claims 1-55. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Diana M. Sangalli", written over a horizontal line.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please amend claim 36 as follows:

36 (Three Times Amended). A computing method, comprising the steps of:

processing application programs in a base computer system at a first location,

communicating results from the application programs by a wireless

communication method to a user interface module comprising a portable
user input device, the user interface module being disposed remote from
the base computer system,

displaying results of the step of communication on a screen of the user interface
module,

together transporting the base computer system and the user interface module to a
second location,

processing application programs in the base station at the second location,

again communicating results from the application programs by a wired
communication method to the user interface module, and

displaying results of the step of again communicating on a screen of the user interface module,

wherein, at both the first location and the second location, the steps of processing application programs in the base station are performed in response only to user input signals generated via the portable user input device.